

Exhibit 9

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ERICSSON INC.
NOKIA OF AMERICA CORPORATION
Petitioners,

v.

XR COMMUNICATIONS LLC
Patent Owner.

U.S. PATENT NO. 7,177,369
Title: MULTIPATH COMMUNICATION METHODS AND APPARATUSES

Inter Partes Review No.: IPR2024-00314

**PETITIONERS' RESPONSE TO
PATENT OWNER'S PRELIMINARY RESPONSE**

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Petitioners herein “address the [im]propriety of Patent Owner’s claim construction of the term ‘pre-equalization parameter.’” Paper #8 at 3. Patent Owner’s Preliminary Response (POPR) redefines “pre-equalization” in “pre-equalization parameter” to be “modifying a signal to reduce unwanted effects associated with multipath fading between the transmitter and the receiver.” POPR at 8, 14, 15, 21, 22. This is referenced herein as Patent Owner’s (“PO”) “intended purpose.” No basis exists in law or the intrinsic record to incorporate this intended purpose from the specification into Claim 1.

Claim 1 already recites how the “pre-equalization parameter” is used.

A method comprising:

identifying at least one multipath transmission delay within a reverse path data signal received from a receiving device;

determining at least one forward path pre-equalization parameter based on said at least one transmission delay; and

modifying a forward path data signal that is to be transmitted to the receiving device based on said at least one forward path pre-equalization parameter, where said modifying includes selectively setting different transmission power levels for at least two Orthogonal Frequency Division Multiplexing (OFDM) tones in said forward path data signal.

EX-1001, Claim 1. The claim already recites that “pre-equalization” performs a very specific action (modifying the power levels for two OFDM tones before transmission). Thus, the claim language recites the complete usage chosen by the

patentee to define the claim. Moreover, when the patentee wanted PO's intended purpose of reduced multipath to be included in a claim, the patentee expressly included that language. EX-1001, claims 30 ("to reduce multipath propagation"); 37 ("to reduce multipath affects"); 65, 74, 88.

Under PO's construction, prior art, or an accused product, could exactly recite every word of Claim 1 and perform every claimed step in verbatim language, but would fall outside of Claim 1 unless it recited PO's intended purpose. PO's intended purpose improperly reads an "intent" element into the claims. Under PO's construction, it is not enough to perform the steps of the method, but those steps must have the intent to perform PO's intended purpose. Such an "intent" claim construction is improper. *Sorrell Holdings, LLC v. Infinity Headwear & Apparel, LLC*, 2024 U.S. App. LEXIS 2487, at *6 (Fed. Cir. Feb. 5, 2024) (district court's construction "erroneously required ...a design intent requirement").

The specification does not support PO's intended purpose. The *claimed* embodiment (modifying OFDM power levels) is taught in a single passage. EX-1001, 15:31-63 (modifying OFDM power levels for different tones). Notably, this embodiment does not specify PO's intended purpose. A second embodiment at 14:30-15:29 discusses "parameters" used to "modif[y] each tone" using "channel characteristics" (without teaching that the modification is OFDM tone power levels as claimed). Again, this embodiment also does not specify PO's intended purpose.

Conspicuously, the POPR does not cite to either embodiment most relevant to claim 1 (15:31-63, 14:30-15:29) to support PO's intended purpose. Instead, PO cites to five columns of materials in the '369 specification. POPR at 14-16 (citing to 3:8-7:4; 7:63-8:3; 10:31-37; and 7:14-21). Notably, PO's cited portions do not identify passages related to the *claimed* usage of pre-equalization (modifying OFDM tone power levels). Columns 3-7 (cited by PO) discusses known techniques – not anything alleged to be invented in the '369 patent.

PO's remaining passages do not compel reading PO's intended purpose into the meaning of “pre-equalization.” PO relies on one excerpt that recites “substantially reduces unwanted effects”:

With these and/or other design considerations in mind, in accordance with certain aspects of the present invention equalization techniques are provided for use at a transmitting node and configured to perform pre-equalization that **substantially reduces unwanted effects** *associated with multipath fading*, including retro-reflected propagation delays. Such pre-equalization techniques are discussed in greater detail in later sections.

EX-1001, 7:14-21.

Beyond the lack of support, PO's intended usage construction: (1) renders the claim indefinite; and/or (2) necessitates further constructions to construe the construction. For example, on PO's “**reduces**” limitation, PO (without basis) omits “**substantially**” – likely because it would render the construction indefinite.

Invitrogen Corp. v. Clontech Labs., Inc., 429 F.3d 1052, 1074 (Fed. Cir. 2005)

(178 claims reciting “substantially reduced” indefinite while four claims further defining the “reduce” limitation to “no detectable” held not invalid). Thus, PO’s construction would require a further interpretation of “substantially reduces” that provides an objective basis for evaluating this term.

Similarly, PO’s term “**unwanted**” implies that some “effects” of multipath may be “wanted.” This requires a further construction of how to distinguish between unwanted and wanted effects. PO’s term “**effects**” also requires further construction. What is an “effect” in this context. The ‘369 patent does describe some multipath effects such as being “difficult . to ... determine information content.” EX-1001, 3:17-21. If “effect” is part of the claim (through PO’s intended purpose), then it must be construed in the context of the ‘369 patent.

Also, *associated with multipath fading* requires construction. PO does not propose a standard for a POSA to use to determine if some (unknown) “effect” is “*associated with multipath fading.*” PO’s construction would need to encompass the ‘369 definition that “multipath fading will often cause the channel transfer function to have frequency-dependent responses that alter the amplitude and phase modulation content of a received signal... that exist across the modulation bandwidth of a signal” EX-1001, 3:24-32.

Moreover, PO’s cited passage states “[s]uch pre-equalization techniques are discussed in greater detail in later sections.” EX-1001, 7:19-21. One of those

techniques “in later sections” is the OFDM tone power modification technique expressly recited in Claim 1. EX-1001, 15:31-64. Thus, PO’s construction is superfluous because meeting the actual claimed requirement (OFDM tone power modification) meets PO’s intended purpose definition.

The prosecution history does not support PO’s intended passage nor did PO cite any prosecution history excerpts with its intended purpose construction.

PO stated that it does not assert lexicography. But PO seeks to do exactly that – without meeting lexicography’s stringent bar. “The bar for lexicography is exacting... Lexicography applies only where the patentee ‘clearly set[s] forth a definition of the disputed claim term’ and ‘clearly express[es] an intent’ to redefine the term.” *Guardant Health, Inc. v. Vidal*, 2023 U.S. App. LEXIS 11037, at *5 (Fed. Cir. May 5, 2023) (citations omitted). PO plucks one (partial) passage out of the specification to incorporate into the meaning of “pre-equalization” under the guise of “plain and ordinary meaning.” If this approach is permissible, then there is no need for any party to ever meet the “exacting” bar of lexicography. A party could always incorporate limitations from the specification and couch its arguments (as PO does) as “plain and ordinary meaning.” Eliminating the concept of lexicography is not a proper approach to claim construction.

Petitioners requests the Board reject PO’s improper intended purpose construction, institute *inter partes* review, and cancel all Challenged Claims.

Respectfully submitted,

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Dated: May 8, 2024

Petition for *Inter Partes* Review of U. S. Patent No. 7,177,369

CERTIFICATION OF SERVICE ON PATENT OWNER

Pursuant to 37 C.F.R. §§ 42.6(e), 42.8(b)(4) and 42.105, the undersigned certifies that on the 8th of May, 2024, a complete and entire copy of this Reply were served via email to counsel of record that has entered an appearance in this proceeding:

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